

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 30300 6/6/2001]

[Docket No. 99-CE-82-AD; Amendment 39-12243; AD 2001-11-02]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft LTD Models PC-12 and PC-12/45 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes Airworthiness Directive (AD) 99-17-08, which currently requires modifying the generator 2 excitation by removing certain diodes and installing a new 5-amp circuit breaker and suppression filter on certain Pilatus Aircraft Ltd. (Pilatus) Models PC-12 and PC-12/45 airplanes. This AD is the result of the Federal Aviation Administration's determination that the A250 voltage spike suppression filter in the modification kit can cause the circuit breaker 235 to trip because of overload. In extreme circumstances, this can lead to overheating of wiring. This AD requires you to modify the generator 2 excitation by removing certain diodes and installing a new 5-amp circuit breaker and suppression filter of improved design in accordance with revised procedures. This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Switzerland. The actions specified by this AD are intended to prevent damage to electrical components if generator 2 is not switched off before engine shutdown and it overheats. This could result in loss of electrical power to certain critical airplane components.

DATES: This AD becomes effective on July 23, 2001.

The Director of the Federal Register approved the incorporation by reference of Pilatus Service Bulletin No. 24-014, dated October 27, 1999, as of July 23, 2001.

The Director of the Federal Register previously approved the incorporation by reference of Pilatus Service Bulletin No. 24-012, dated February 19, 1999, as of October 4, 1999 (64 FR 45149, August 19, 1999).

ADDRESSES: You may get the service information referenced in this AD from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland; telephone: +41 41 619 65 09; facsimile: +41 41 610 33 51. You may examine this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-82-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Discussion

Has FAA taken any action to this point? The FAA issued AD 99-17-08, Amendment 39-11256 (64 FR 45149, August 19, 1999), against Pilatus models PC-12 and PC-12/45 airplanes, to prevent damage to electrical components if generator 2 is not switched off before engine shutdown and it overheats. This could result in loss of electrical power to certain critical airplane components.

AD 99-17-08 requires that you do the following on the affected airplanes:

- modify the generator 2 excitation by removing certain diodes; and
- install a new 5-amp circuit breaker and suppression filter.

AD 99-17-08 was the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Switzerland.

What has happened since AD 99-17-08 to begin this action? The Federal Office for Civil Aviation (FOCA), which is the airworthiness authority for Switzerland, notified the FAA of the need to change AD 99-17-08. The FOCA reports that after installation of the modification kit in accordance with Pilatus Service Bulletin SB 24-012 and turning on electrical power on one of the affected airplanes, the circuit breaker CB 235 tripped.

Investigation revealed that the suppression filter (A250) (part number 524.52.12.358) was shorted. The suppression diode installed in the filter was shorted and was the wrong type. The manufacturer's A250 voltage spike suppression filter is inadequate and has been replaced with an A250 voltage spike suppression filter of improved design.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Pilatus Models PC-12 and PC-12/45 airplanes. This proposal was published in the *Federal Register* as a notice of proposed rulemaking (NPRM) on March 5, 2001 (66 FR 13271). The NPRM proposed to supersede AD 99-17-08, Amendment 39-11256 (64 FR 45149, August 19, 1999). The NPRM also proposed to require you to modify the generator 2 excitation by removing certain diodes and installing a new 5-amp circuit breaker and suppression filter of improved design in accordance with revised procedures.

Was the public invited to comment? Interested persons were afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

FAA's Determination

What is FAA's final determination on this issue? After careful review of all available information related to the subject presented above, we have determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. We determined that these minor corrections:

- will not change the meaning of the AD; and
- will not add any additional burden upon the public than was already proposed.

Cost Impact

How many airplanes does this AD impact? We estimate that this AD affects 69 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? We estimate the following costs to do the modification of the generator 2 excitation:

Labor Cost	Parts Cost	Total Cost Per Airplane	Total Cost on U.S. Operators
8 workhours X \$60 per hour = \$480.	Parts will be provided at no cost to the	\$480.	\$33,120.

owners/operators of
the affected aircraft.

If the modification of the generator 2 excitation has been done with the manufacturer's modification kit, then we estimate the following costs to remove the A250 voltage spike suppression filter and replace it with the new A250 voltage spike suppression filter:

Labor Cost	Parts Cost	Total Cost Per Airplane	Total Cost on U.S. Operators
3 workhours X \$60 per hour = \$180.	Parts will be provided at no cost to the owners/operators of the affected aircraft.	\$180.	\$12,420.

Regulatory Impact

Does this AD impact various entities? The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

Does this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "ADDRESSES".

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by removing airworthiness directive (AD) 99-17-08, Amendment 39-11256 (64 FR 45149, August 19, 1999), and by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-11-02 PILATUS AIRCRAFT LTD.: Amendment 39-12243; Docket No. 99-CE-82-AD, Supersedes AD 99-17-08, Amendment 39-11256.

(a) What airplanes are affected by this AD? This AD affects Models PC-12 and PC-12/45 airplanes, serial numbers 101 through 289, that are certificated in any category.

(b) Who must comply with this AD? Anyone who wishes to operate any of the above airplanes must comply with this AD.

(c) What problem does this AD address? The actions specified by this AD are intended to prevent damage to electrical components if generator 2 is not switched off before engine shutdown and it overheats. This could result in loss of electrical power to certain critical airplane components.

(d) What actions must I accomplish to address this problem? To address this problem, you must accomplish the following:

Actions	Compliance	Procedures
(1) Modify the generator 2 excitation with the modification kit, part number (P/N) 500.50.12.192, which requires you to: (i) Remove certain diodes; (ii) Install a new 5-amp circuit breaker, P/N 972.55.18.406; and (iii) Install an A250 voltage spike suppression filter, P/N 524.52.12.502, which replaces P/N 524.52.12.358.	Within the next 100 hours time-in-service (TIS) after July 23, 2001 (the effective date of this AD), unless already done.	Do this action following the ACCOMPLISHMENT INSTRUCTIONS section of Pilatus Service Bulletin No. 24-012, dated February 19, 1999, and Service Bulletin No. 24-014, dated October 27, 1999.

Actions	Compliance	Procedures
(2) If the modification kit, part number 500.50.12.192, is already installed using the A250 voltage spike suppression filter, part number 524.52.12.358, replace only this voltage spike suppression filter with a new A250 voltage spike suppression filter, part number 524.52.12.502.	Within the next 100 hours TIS after July 23, 2001 (the effective date of this AD), unless already done.	Do this action following the ACCOMPLISHMENT INSTRUCTIONS section of Pilatus Service Bulletin No. 24-014, dated October 27, 1999.
(3) Do not install any A250 voltage spike suppression filter, part number 524.52.12.358, or FAA-approved equivalent part number.	As of July 23, 2001 (the effective date of this AD).	Not Applicable.

(e) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and
- (2) The Manager, Small Airplane Directorate, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.
- (3) Alternative methods of compliance that were approved in accordance with AD 99-17-08 are not considered approved as alternative methods of compliance for this AD.

Note 1: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) Where can I get information about any already-approved alternative methods of compliance? Contact Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

(g) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) Are any service bulletins incorporated into this AD by reference? Actions required by this AD must be done in accordance with Pilatus Service Bulletin No. 24-012, dated February 19, 1999, and Pilatus Service Bulletin No. 24-014, dated October 27, 1999.

(1) The Director of the Federal Register approved the incorporation by reference Pilatus Service Bulletin No. 24-014, dated October 27, 1999, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Pilatus Service Bulletin No. 24-012, dated February 19, 1999, as of October 4, 1999 (64 FR 45149, August 19, 1999).

(3) You can get copies from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland. You can look at copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) When does this amendment become effective? This amendment becomes effective on July 23, 2001.

Note 2: The subject of this AD is addressed in Swiss AD Numbers HB 99-143, dated February 19, 1999, and HB 99-542, dated October 29, 1999.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

Issued in Kansas City, Missouri, on May 22, 2001.

Michael Gallagher, Manager, Small Airplane Directorate, Aircraft Certification Service.